

Serial No. 10/763,686
Response dated January 18, 2005
Reply to Office Action of November 30, 2004

Docket No. 5000-5141

REMARKS

Claims 1, 3, 4 and 6-17 were previously pending in this application, with claims 1 and 10 in independent form. Claims 2 and 5 have been canceled without prejudice or disclaimer. Claims 3 and 12 have been amended, herein. Support for the amendments may be found throughout the specification, for example at paragraph 0020 on page 9. Applicants submit that no new matter has been entered by way of this amendment. Applicants respectfully request reconsideration of the above-identified application, in view of the above amendment and following remarks.

Claim Rejection under 35 U.S.C. § 112

Claims 3 and 12 have been rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Office Action asserts that claims 3 and 12 recite a Ca/Al ratio of "2 or less" that is not supported by the specification. While Applicants submit that the Ca/Al ratio of 2 or less could be achieved through creating an alloy with various combinations of the Ca by mass percentage and the Al by mass percentage as recited in claim 1, Applicants have amended the claim to recite "2 or more" as explicitly recited in the specification ¶ 0020 on page 9.

Claim Rejection under 35 U.S.C. § 103

Claims 1, 3, 4 and 6-17 have been rejected under 35 U.S.C. 103(a), as allegedly being anticipated by Regazzoni, et al. US Patent No. 4,997,622. These claims have also been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable by Faure, et al. US Patent No. 5,073,207. Applicants respectfully submit that pending independent claims 1 and 10, as well as the claims that are directly or indirectly dependent therefrom, are patentably distinct from the cited references.

Amended independent claim 1 recites, *inter alia*:

A heat-resistant magnesium alloy...**consisting** essentially of...**calcium...aluminum...**[and] **manganese** and [having] a mass ratio of the Ca amount with respect to the Al amount, Ca/Al by mass, being 1 or more (emphasis added).

The Office Action indicates that the “when prior art compounds essentially [is] ‘bracketing’ the claimed compounds....one of ordinary skill in the art would clearly be motivated to make those claimed compounds in searching for new products in the expectation that compounds similar in structure will have similar properties....” The Examiner concludes, “Therefore, it would have been obvious to one of ordinary skill in the art to select any portion of range including the claimed range, from the broader range disclosed in a prior art reference....” (See, Office Action, page 4, ¶ 1). Applicants respectfully submit that the cited references do not disclose “broader ranges” that “bracket” the claimed range. Specifically, Applicants submit that the cited references do not teach or suggest a magnesium alloy consisting essentially of calcium,

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aluminum and manganese having a calcium/aluminum (Ca/Al) mass ratio being 1 or more, as recited in independent claim 1.

The Examiner relies on Faure's Table 1, shown in Col. 4, as allegedly disclosing the broader ranges that "bracket" the claimed ranges. However, none of Faure, et al.'s tests 1-5, disclose, teach or suggest an alloy consisting essentially of Ca, Al, and Mn, with a Ca/Al mass ratio greater than or equal to 1. Further, tests 1, 2, and 4 disclose excluding Mn (Mn=0). Turning to tests 3 and 5, Faure, et al. disclose the following Ca/Al mass ratios: Test 3: 2/8.5 (Ca/Al mass ratio = .235); and Test 5: 4.5/ 7 (Ca/Al mass ratio = .643) (See, Faure, et al. Table 1, Col. 4). Accordingly, Applicants submit that the claimed mass ratio recited in pending independent claim 1, "being 1 or more", is not "bracketed," disclosed, taught or suggested by the mass ratios disclosed in Faure, et al., all of which are less than one. Therefore, Applicants submit that a prima facie case of obviousness has not been established.

Similarly, Applicants submit that the trials disclosed in Regazzoni, et al. do not disclose, teach, suggest or "bracket" the claimed composition. The Examiner relies on the theoretical ranges for the alloys disclosed in Regazzoni, et al. However, turning the actual alloy implemented by Regazzoni, et al. in Col. 6, Table I, of the thirteen alloys disclosed all but two exclude Mn. Only tests 10 and 11, disclose the use of Mn in the alloy. Furthermore, in tests 10 and 11, the Ca/Al mass ratio is $3.5/5 = 0.7$ (Test No. 10) and $3.5/5 = 0.7$ (Test No. 11) respectively, which are both less than 1 (See, Regazzoni, et al., Col. 6, Table I). Accordingly, Applicants submit that the claimed mass ratio recited in pending independent claim 1, "being 1

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or more”, is not “bracketed,” disclosed, taught or suggested by the mass ratios disclosed in Regazzoni, et al., all of which are less than one. Therefore, Applicants submit that a prima facie case of obviousness has not been established.

In summary, Applicants respectfully submit that the recited alloy **consisting** essentially of Ca, Al, and Mn with a mass ratio of Ca/Al greater than or equal to 1, as in independent claim 1, is patentably distinct from the various alloys disclosed in the Faure, et al. and Regazzoni, et, al, respectively. Further, Applicants respectfully submit that for at least a similar reason independent claim 10, as well as, claims 3, 4-9, and 11-17, which are directly or indirectly dependent on independent claims 1 and 10 respectively, are also patentably distinct from the cited references. Therefore, Applicants respectfully request withdrawal of these grounds of rejections.

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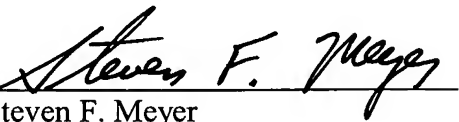
CONCLUSION

It is now believed that all pending claims are in condition for allowance. In view of these remarks, an early and favorable reconsideration is respectfully requested.

Respectfully submitted,

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